

DOCKET NO: 29236SUS0PCT

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :
KAZUHIRO OSHIMA, ET AL. : EXAMINER: SASTRI, S. B.
SERIAL NO: 10/583,449 :
FILED: JUNE 19, 2006 : GROUP ART UNIT: 1796
FOR: CURABLE RESIN COMPOSITION :

DECLARATION UNDER 37 C.F.R. § 1.132

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

I, Mr. Kazuhiro Oshima, declare and state as follows:

1. I am a named co-inventor in the above-identified application.
2. I am familiar with the claims, and have read the Office Action mailed January 7, 2009, in the above-identified application.
3. Tables 1 and 3, attached herewith, are based on Tables 1 and 3 described in the above-identified application with the addition of data for Spherical alumina Nos. X and XI. The data for Spherical alumina Nos. X and XI are prophetic in the same way that the remaining data is prophetic, as explained in the amendment filed concurrently with this Declaration.
4. Spherical alumina No. X has a mode diameter between 70 and 100 μm . Since Spherical alumina No. X has a low tensile lap-shear strength, it does not exhibit the effects of the present invention.

Application No. 10/583,449
Reply to Office Action of January 7, 2009

Spherical alumina No. XI has a peak diameter within the range less than 10 μm .

Since Spherical alumina No. XI has a low tensile lap-shear strength, it does not exhibit the effects of the present invention.

5. The undersigned declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

6. Further declarant saith not.

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Kayshiro Cushman
Signature
May 21, 2009
Date

[TABLE1]

Spherical alumina No.	Peak diameter (μm) in 0.2 to 1.5 μm	Peak diameter (μm) in 3 to 10 μm	Peak diameter (μm) in 30 to 70 μm	Mode diameter (μm)	Median diameter (μm)
I	0.3	5.2	38.8	38.8	9.5
II	0.3	7.5	38.8	38.8	12.1
III	0.7	7.5	55.1	55.1	12.0
IV	Nil	5.2	38.8	38.8	23.5
V	0.7	5.1	76.1	76.1	35.9
VI	0.3	15.5	38.8	38.8	17.6
VII	0.1	Nil	38.8	38.8	35.3
VIII	0.3	5.2	25.7	25.7	11.9
IX	0.7	3.2	33.1	33.1	4.7
X	0.6	Nil	81.2	81.2	46.7
XI	0.1	5.0	74.3	74.3	34.8

[TEBLE3]

		Comp. Ex. 1						
Sample NO.		7	8	9	10	11	12	13
Spherical alumina NO.		V	VI	VII	VIII	IX	X	XI
Amount of alumina (parts by mass)		400	400	400	400	400	400	400
Evaluation results	Viscosity (mPa · s)	39,000	65,000	103,000	35,000	93,000	72,000	113,000
	Curing time (min)	50	53	52	46	45	46	51
	Modulus in tension (MPa)	4.5	4.8	5.5	4.7	4.6	4.7	4.6
	Coefficient of thermal conductivity (W/m · K)	2.1	2.0	2.3	1.9	1.9	2.9	2.0
	Tensile lap-shear strength (MPa)	4.2	3.8	0.9	4.0	1.2	0.8	1.1